

September 22, 2005
Case No. CR00302M (9640/87)
Serial No.: 10/136,100
Filed: October 19, 2001
Page 10 of 13

Remarks

Drawings:

The drawings were objected to because of the following:

- element 27 was not shown in FIG. 1;
- arrows connecting elements 24 and 26 were not shown; and
- element 25 did not have an output.

In response, FIG. 1 has been modified accordingly.

Claim Objections:

Claims 15 and 16 were objected to for several informalities. In particular, the Examiner suggested that claim 15, line 2 state "first feed-forward filter filters" and that claim 16, line 3 state "of the plurality of samples through". In response, the above changes have been made.

Rejections Under 35 USC 112:

The Examiner states that there is insufficient antecedent basis for "said first output" in claim 18. This claim has been amended accordingly.

September 22, 2005
Case No. CR00302M (9640/87)
Serial No.: 10/136,100
Filed: October 19, 2001
Page 11 of 13

Rejections Under 35 USC 102:

Claims 1 and 3 were rejected under 35 USC §102(e) as being anticipated by De (US Pat. No. 6,563,812). In response, the Applicants have amended claims 1 and 3 to better recite what the Applicants regard as their invention. In particular, claims 1 and 3 was amended to include the fact that the first set of soft estimates are generated in a first iteration and the second set of soft estimates are generated in a second iteration with the second feedback filter being a function of the soft symbol estimates obtained during the first iteration.

Analysis of De reveals that De teaches using two feedback signals received simultaneously to produce the estimates. This is evident in FIG. 1 where summer 210 simultaneously receives the two signals for units 204 and 206. Thus, De fails to teach or otherwise suggest the generation of a first set of soft estimates during a first iteration and a second set of soft estimates during a second iteration.

Notwithstanding this fact, De additionally fails to teach or otherwise suggest that the second feedback filter is a function of the soft symbol estimates obtained during the first iteration. This is evident in FIG. 1 where there is no correlation between a feedback filter and any soft estimates.

Because of the above arguments, claims 1 and 3 are allowable over the prior art of record.

Regarding claim 5: Claim 6 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response, claim 5 was amended to include those limitations originally found in claim 6. Therefore, claim 5 is in proper condition for allowance.

Regarding claim 13: Claim 14 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response, claim 13 was amended to include those limitations originally found in claim 14. Because of this, claim 13 is allowable over the prior art of record.

September 22, 2005
Case No. CR00302M (9640/87)
Serial No.: 10/136,100
Filed: October 19, 2001
Page 12 of 13

Regarding claim 21, this claim was rejected under 35 USC §103(a) as being unpatentable over De in view of Agazzi. In response, this claim was amended to include the limitations that the first set of soft estimates are generated in a first iteration and the second set of soft estimates are generated in a second iteration with the second feedback filter being a function of the soft symbol estimates obtained during the first iteration. For the arguments set forth above with respect to claims 1 and 3, claim 21 is allowable over the prior art of record. Particularly, the combination of De and Agazzi fails to show any sort of iteration. Additionally, these references fail to teach or otherwise suggest additionally that the second feedback filter is a function of the soft symbol estimates obtained during the first iteration.

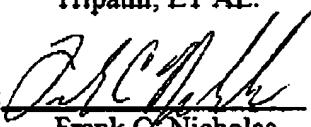
Regarding claim 23: this claim was amended to include those limitations originally found in claim 24. Since claim 24 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, claim 23 is in proper condition for allowance.

September 22, 2005
Case No. CR00302M (9640/87)
Serial No.: 10/136,100
Filed: October 19, 2001
Page 13 of 13

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references. As the Applicant has overcome all substantive rejections given by the Examiner the Applicant contends that this Amendment, with the above discussion, overcomes the Examiner's rejections to the pending claims. Therefore, the Applicant respectfully requests allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter. Finally, please charge any fees (including extension of time fees) or credit overpayment to Deposit Account No. 502117.

Respectfully Submitted,
Tripathi, ET AL.

by:


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